

carrier for transmission over the network line to the first telephony device at the renegotiated data rate.

79. (New) The computer-readable media of claim 78 wherein the method further comprises spoofing the first telephony device in response to a delay of the data signals from the remote system.

80. (New) The computer-readable media of claim 79 wherein the method further comprises buffering the data signals from the packet based network, the first telephony device being spoofed when the data signals buffered are below a threshold.

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81. (New) The computer-readable media of claim 78 wherein the method further comprises buffering the data signals from the packet based network, and controlling the renegotiated data rate as function of the buffered data signals.

82. (New) The computer-readable media of claim 81 wherein the control of the renegotiated data rate comprises increasing the renegotiated data rate if the buffered data signals exceed a first threshold and decreasing the renegotiated data rate if the buffered data signals are below a second threshold.

REMARKS

Claims 58-82 have been added to this application and are currently pending in this case. Claims 46-57 have been canceled without prejudice for prosecution in co-pending patent application No. 09/522,185. Applicants submit that claims 58-82 are patentably distinguishable over the cited references, and reconsideration and allowance of this application are respectfully requested.

An amendment, petition and fee under 37 CFR 1.48(b) are being filed concurrently with this amendment to delete Ross Mitchell, Wilf

LeBlanc, Ken Unger, Shawn Stevenson, Bill Boora, Onur Tackin, Scott Branden, and Chad Griffiths from the names of inventors on this application, for they are not the inventors of the claims now pending in this application.

Claims 48, 50-52, 55 and 57 have been rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to provide an enabling disclosure. In view of the foregoing amendments canceling claims 46-57, this rejection is moot.

Claims 46, 49, and 52-53 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Lin et al. (PCT Pub. No. WO 97/28628). Claim 47 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lin in view of Wilkes et al. (PCT Pub. No. WO 97/26753). Claim 48 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lin in view of Chen (U.S. Patent No. 5,987,061). Claim 55 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lin in view of Sugino et al. (U.S. Patent No. 5,694,517). Claim 50 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lin in view of Schuster (U.S. Patent No. 6,151,636). Claims 56 and 57 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lin in view of Mekuria (U.S. Patent No. 5,970,441). Claims 51 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lin in view of Jones et al. (U.S. Patent No. 6,141,341). Claims 54 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lin in view of Lee et al. (U.S. Patent No. 6,023,470). In view of the foregoing amendments canceling claims 46-57, this rejection is moot.

Applicants disclose a novel and unobvious concept that allows multiple telephony devices to communicate over a packet based network. In at least one embodiment, the telephony devices are synchronized to the same data rate prior to data transmission. This can be achieved through a data rate negotiation procedure. By way of example, a

calling telephony device independently negotiates a data rate with a calling rate negotiator, and an answering telephony device independently negotiates a data rate with an answering rate negotiator. Then, the calling and answering rate negotiators exchange their respective independently negotiated data rates over the packet based network. If the independently negotiated data rates are the same, then data rate synchronization is achieved and data transmission between the calling and answering telephony devices can proceed. Conversely, if the independently negotiated data rates are different, then the calling and answering rate negotiators will renegotiate the data rate by adopting one of the two data rates. The calling and answering telephony devices can then be retrained, if needed, with the renegotiation data rate.

In the Office action, the Examiner concludes that Wilkes discloses Applicant's data rate synchronization concept. However, the Examiner's reading of Wilkes is misplaced because Wilkes fails to disclose at least one aspect of Applicant's approach. Specifically, Wilkes fails to disclose the concept of renegotiating the independently negotiated data rates over a packet based network.

Wilkes discloses a system whereby two fax machines communicate over the Internet. An originating fax machine is coupled to the Internet through an originating fax engine, and a receiving fax machine is coupled to the Internet through a receiving fax engine. Wilkes further describes the process by which each fax machine establishes a connection with its respective fax engine. For the purposes of this description, Wilkes defines the "sending process" as the sequence of events necessary for the transmission of a fax from the receiving fax engine to the receiving fax machine, and the "receiving process" as the sequence of events necessary for the transmission of a fax from the originating fax machine to the originating fax engine. (See Wilkes, p. 16:31 - 17:4). In describing the "receiving process," Wilkes teaches that the

originating "FaxEngine 12 is directed to negotiate communication parameters such as transmission speed with the originating fax machine 10" (See Wilkes, p. 17:29-34). In describing the "sending process," Wilkes teaches that the receiving fax engine establishes a telephone line connection with the receiving fax and then "negotiates communication parameters with the receiving fax machine 18" (See Wilkes, p.19:25-29). However, nowhere in Wilkes is it taught or suggested that the two fax engines should renegotiate the data rate that they independently negotiated with their respective fax machines over the Internet. Accordingly, Wilkes is fundamentally different than Applicants' approach.

Referring now to the specific claims, Applicants submit that they recite subject matter which is neither disclosed nor suggested by Wilkes. Consider, for example, independent claims 58, 67 and 77 each which recite negotiating "a data rate with a first telephony device over a network line" and renegotiating "the negotiated data rate with a remote system over a packet based network" As explained above, Wilkes discloses a system whereby each fax machine independently negotiates certain communication parameters with its respective fax engine. However, the fax engines never renegotiate over the Internet the data rates previously negotiated by each fax engine with its respective fax machine. Accordingly, claims 58, 67 and 77 are patentable over the cited references.

Claims 59 - 66, 68-76 and 78-82 are all dependent, either directly or indirectly, from either claim 58, 67, or 77, and therefore, incorporate all the limitations from the claims which they respectively depend. Accordingly, these claims are also patentable for the same reasons set forth hereinbefore as well as the additional limitations recited therein.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is now in condition for

allowance, and accordingly, reconsideration and allowance are respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Page 1, line 6, delete "~~The present application claims priority under 35 U.S.C. §119(e) to provisional Application No. 60/154,903, filed September 20, 1999; Application No. 60/156,266, filed September 27, 1999; Application No. 60/157,470, filed October 1, 1999; Application No. 60/160,124, filed October 18, 1999; Application No. 60/161,152, filed October 22, 1999; Application No. 60/162,315, filed October 28, 1999; Application No. 60/163,169, filed November 2, 1999; Application No. 60/163,170, filed November 2, 1999; Application No. 60/163,600, filed November 4, 1999; Application No. 60/164,379, filed November 9, 1999; Application No. 60/164,690, filed November 10, 1999; Application No. 60/164,689, filed November 10, 1999; Application No. 60/166,289, filed November 18, 1999; Application No. 60/171,203, filed December 15, 1999; Application No. 60/171,180, filed December 16, 1999; Application No. 60.171,169, filed December 16, 1999; Application No. 60/171,184, filed December 16, 1999, and Application No. 60/178,258, filed January 25, 2000. All these applications are expressly incorporated herein by reference as though fully set forth in full.~~" and insert therefor The present application claims priority under 35 U.S.C. § 119(e) to the following provisional applications: Serial Number 60/164,689, filed on November 10, 1999; Serial Number 60/157,470, filed on October 1, 1999; Serial Number 60/156,266, filed on September 27, 1999; and Serial Number 60/154,903, filed on September 20, 1999. All these applications are expressly incorporated by reference herein as though set forth in full. The present application also claims priority under 35 U.S.C. § 119(e) to the following provisional applications: Application No. 60/160,124, filed October 18, 1999; Application No. 60/161,152, filed October 22, 1999; Application No. 60/162,315, filed October 28, 1999; Application No. 60/163,169, filed November 2, 1999; Application No. 60/163,170, filed

November 2, 1999; Application No. 60/163,600 filed November 4, 1999;
Application No. 60/164,379, filed November 9, 1999; Application No.
60/164,690; filed November 10, 1999; Application No. 60/166,289, filed
November 18, 1999.

Page 1, line 29 - page 2, line 27, delete ~~In one aspect of the present invention, a method of transmitting data includes negotiating a data rate between a rate negotiator and a first telephony device, and renegotiating the negotiated data rate between the rate negotiator and a system having a second telephony device to allow data transmission between the first and second telephony devices.~~

~~— In another aspect of the present invention, a method of establishing a data rate includes initializing a data rate, receiving a data rate from a first telephony device, setting a negotiated data rate based on the initial data rate and the data rate for the first telephony device, receiving a data rate from a system, and setting a renegotiated data rate based on the negotiated data rate and the system data rate.~~

~~— In yet another aspect of the present invention, a method of negotiating synchronizing a data rate includes exchanging data rates between a first data exchange and a first telephony device, negotiating a first data rate based on the exchanged data rates between the first data exchange and the first telephony device, exchanging data rates between a second data exchange and a second telephony device, negotiating a second data rate based on the exchanged rates between the second data exchange and the second telephony device, exchanging the first and the second data rates over a packet based network, and negotiating a third data rate based on the exchanged first and second data rates.~~

~~— In yet a further aspect of the present invention, a data exchange includes a rate negotiator capable of negotiating a data rate with a first telephony device, and renegotiating the negotiated data rate~~

~~with a system comprising a second telephony device to allow data transmission between the first and second telephony devices.~~

~~In yet another aspect of the present invention, a signal transmission system includes a first telephony device having a data rate, a first data exchange having a data rate, a first rate negotiator which exchanges the data rates between the first data exchange and the first telephony device and negotiates a first data rate based on the exchanged data rates between the first data exchange and the first telephony device. A second telephony device having a data rate, a second data exchange having a data rate, and a second rate negotiator which exchanges the data rates between the second data exchange and the second telephony device and negotiates a second data rate based on the exchanged data rates between the second data exchange and the second telephony device, wherein the first and the second rate negotiators cooperate to exchange the first and the second data rates and negotiate a third data rate based on the exchanged first and second data rates. A packet based network coupling the first data exchange to the second data exchange. and replace with~~

In one aspect of the present invention, a communications system includes a rate negotiator configured to negotiate a data rate with a first telephony device over a network line, and renegotiate the negotiated data rate with a remote system over a packet based network, the remote system comprising a second telephony device, and wherein the data exchange is configured to exchange data signals between the first telephony device and the remote system at the renegotiated data rate.

In another aspect of the present invention, a method of communications includes negotiating a data rate with a first telephony device over a network line, renegotiating the negotiated data rate with a remote system over a packet based network, the remote system comprising a second telephony device, and exchanging data signals

between the first telephony device and the remote system at the renegotiated data rate.

In yet another aspect of the present invention, computer-readable media embodying a program of instructions executable by a computer performs a method of communications, the method including negotiating a data rate with a first telephony device over a network line, renegotiating the negotiated data rate with a remote system over a packet based network, the remote system comprising a second telephony device, and exchanging data signals between the first telephony device and the remote system at the renegotiated data rate.

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